

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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PCT

**WRITTEN OPINION OF THE INTERNATIONAL
SEARCHING AUTHORITY**

(PCT Rule 43 *bis*.1)

Date of mailing

(day/month/year): 2004.10.18 • 2005

Applicant's or agent's file reference

P2004350M

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/CN2004/001179

International filing date (day/month/year)

18.Oct 2004 (18.10.2004)

Priority date (day/month/year)

23.Oct 2003 (23.10.2003)

International Patent Classification (IPC) or both national classification and IPC

IPC: G02F1/133

Applicant

THE HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43 *bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 *bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/

Authorized officer

Facsimile No.

Telephone No.



WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/CN2004/001179

Box No. 1 Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of: international search (under Rules 12.3 and 23.1(b))

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of :

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ in addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement:

Novelty (N)	Claims	1-23	YES
	Claims		NO
Inventive step (IS)	Claims	1-23	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-23	YES
	Claims		NO

2. Citations and explanations

Claims 1~23 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the technical solution of the invention that liquid crystal layer sandwiched between said first and second alignment layers, said first alignment layer inducing a first pretilt angle θ_1 in range of 20°-65° between said liquid crystal layer in contact with said first alignment layer, and said second alignment layer inducing a second pretilt angle θ_2 in range of 20°-65° between said liquid crystal layer in contact with said second alignment layer.

Claims 1~23 meet the criteria set out in PCT Article 33(4), because all the claims are considered to be industrially applicable.